IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN THE APPLICATION OF: Michael R. Harter et al — GROUP: 3626

U. S. SERIAL NO: 10/813,421 — EXAMINER: Nguyen, Tran N.

FILING DATE: March 30, 2004 — Atty. Doc. No: TBM

TITLE: Method for Identifying Allergens and Other Influencing Agents That may Cause a Reaction

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Robert J. Harter – Reg. 32,031 — 12/3/07 date

La Crosse, Wisconsin

December 3, 2007

AMENDED APPEAL BRIEF UNDER 37 CFR 41.37

Commissioner for Patents

Alexandria, VA 22313-1450

This is an amended appeal brief in response to the Notification of Non-Compliant Appeal Brief mailed on November 8, 2007. The amended sections pertain to 37 CFR 41.37(c)(1)(v) and 37 CFR 41.37(c)(1)(ix).

The applicants find the rejection of claim 13 particularly disturbing. The rejection of that extremely narrow claim leads the applicants to question the Examiner's impartiality and ability to evaluate this case with an open mind. The Board of Patent Appeals is respectfully requested to bring this case to a reasonable conclusion.

(i) Real Party in Interest

Michael R. Harter, Robert J. Harter, and Tyler R. Harter are co-inventors that comprise the real party in interest.

(ii) Related Appeals and Interferences

None

(iii) Status of Claims

Claims 1 and 3 – 33 currently stand rejected, and the rejection of these claims is being appealed.

Claim 2 was canceled on March 1, 2007.

(iv) Status of Amendments

No amendments were filed after the final rejection

(v) Summary of Claimed Subject Matter

Independent claim 1 covers the concept of identifying, for example, a person's food allergies by computing a correlation value for every food the person consumes over several days or weeks and any reactions the person experiences. By evaluating the resulting computations, the method can identify allergens without a skin prick test and without the person having to follow an elimination diet or any other particular diet (see Abstract of the Disclosure).

Claim 1 specifically recites, "computing a plurality of correlations corresponding to the plurality of possible influencing agents as each of the plurality of possible influencing agents relate to the reaction; and based on the plurality of correlations, determining and displaying the suspect influencing agent."

More specifically, independent claim 1 finds support in the specification and/or drawings as follows:

1. A method of using a computer and a computer display for identifying a suspect influencing agent that may be causing a reaction in an individual, wherein the suspect influencing agent is one of a plurality of possible influencing agents, the method comprising:

displaying the plurality of possible influencing agents on the computer display (Fig. 1, item 28 and pg. 7, line 22);

displaying the reaction on the computer display (Fig. 1 item 30 and pg. 7, lines 23 and 24);

for a first period, selecting a first plurality of influencing agents from the plurality of possible influencing agents, wherein the individual was exposed to the first plurality of influencing agents during the first period, wherein the step of selecting the first plurality of influencing agents is via the computer (Fig. 1, item 36 and pg. 7 line 26 – pg. 8 line 7);

for a second period following the first period, selecting a second plurality of influencing agents from the plurality of possible influencing agents, wherein the individual was exposed to the second plurality of influencing agents during the second period, wherein the step of selecting the second plurality of influencing agents is via the computer (Fig. 2, item 40 and pg. 8, line 8 – 17);

selecting, via the computer, the reaction that the individual experienced during at least one of the first period, the second period, and a third period, wherein the third period follows the second period (Fig. 2, item 48; Fig. 3, items 58 and 62; and pg. 8, lines 17 – 23);

computing a plurality of correlations corresponding to the plurality of possible influencing agents as each of the plurality of possible influencing agents relate to the reaction (pg. 9, lines 15 – 17; pg. 9, lines 23 – 25; and pg. 10, lines 6 – 10); and

based on the plurality of correlations, determining and displaying the suspect influencing agent (Fig. 4 items 68 and 72 and pg. 9, line 18 – pg. 10 line 2).

Dependent claim 3 covers the concept of identifying the allergen by sorting, for example, food items based on their correlation values (Fig. 4, items 72 and 84).

Dependent claim 4 covers the concept adding, for example, additional food items after the study period has already been started (pg. 8, lines 5 – 7).

Dependent claim 5 covers the concept of entering, for example, food items by simply mouse-clicking on them rather than having to retype them in every time (pg. 8, lines 9 – 12).

Dependent claim 6 covers the concept of selecting reactions by simply mouse-clicking on them rather than having to retype them in every time (pg. 8, lines 15 – 16).

Dependent claim 7 covers the concept of a user being able to enter their own reactions rather than using only those preloaded in the software program (pg. 7, lines 21 – 22.

Dependent claim 8 covers the concept of single-screen viewing of, for example, reactions and food items, which makes it easier to select those items (see Figs. 1 or 2).

Dependent claim 9 covers the concept of helping recognize an allergen by way of a graphical display (Fig. 6).

Dependent claim 10 covers the concept of rating a reaction's magnitude, such as severe, mild or average (pg. 9, lines 4 – 6).

Dependent claim 11 covers the concept of rating the magnitude of an influencing agent. A food consumed on a particular day, for example, might be assign as being a large, medium or small serving portion (pg. 11, line 20; and Fig. 6, item 94).

Dependent claim 12 covers the concept of using the correlation value as an indicator of the likelihood of a future reaction.

Dependent claim 13 covers the concept of disregarding data collected during a woman's menstrual period.

Dependent claim 14 covers the concept of a food item being the possible influencing agent (pg. 6, line 28 – pg. 7 line 16).

Dependent claim 15 covers the concept of an influencing agent being an ingredient of another influencing agent (pg. 11, lines 23 – 25).

Dependent claim 16 covers the concept of delayed reactions (pg. 10, line 16 – 18).

Dependent claim 17 covers the concept of "confidence values" that indicates the reliability or relevance of a correlation value (pg. 10, lines 8 and 9).

Dependent claim 18 covers the concepts of a daily log.

Dependent claim 19 covers the concept of the influencing agent being an allergen (pg. 2, line 5).

Dependent claim 20 covers the concept of the influencing agent being an environmental exposure (pg. 6, line 28 – pg. 7 line 16).

Dependent claim 21 covers the concept of the reaction being physical pain (pg. 6, line 28 – pg. 7 line 16).

Dependent claim 22 covers the concept of the reaction being respiratory-related (pg. 6, line 28 – pg. 7 line 16).

Dependent claim 23 covers the concept of the reaction is skin related (pg. 6, line 28 – pg. 7 line 16).

Dependent claim 24 covers the concept of the reaction pertains to blood pressure (pg. 6, line 28 – pg. 7 line 16).

Dependent claim 25 covers the concept of the reaction is fatique (pg. 6, line 28 – pg. 7 line 16).

Dependent claim 26 covers the concept of the reaction is mentally-related (pg. 6, line 28 – pg. 7 line 16).

Dependent claim 27 covers the concept of the reaction being a seizure (pg. 6, line 28 – pg. 7 line 16).

Dependent claim 28 covers the concept of the reaction being an emotional disturbance (pg. 6, line 28 – pg. 7 line 16).

Dependent claim 29 covers the concept of the influencing agent pertains to an activity (pg. 6, line 28 – pg. 7 line 16).

Dependent claim 30 covers the concept of the influencing agent pertains to an individual's amount of sleep (pg. 6, line 28 – pg. 7 line 16).

Dependent claim 31 pertains to the influencing agent being accessed via the Internet (pg. 4, lines 21 and 22).

Independent claim 32 is a combination of claims 1, 4 and 5. More specifically, independent claim 32 finds support in the specification and/or drawings as follows:

32. A method of using a computer and a computer display for identifying a suspect influencing agent that may be causing a reaction in an individual, wherein the suspect influencing agent is one of a plurality of influencing agents, the method comprising:

entering into the computer the plurality of possible influencing agents (pg. 6, lines 23 and 24; pg. 7, lines 24 and 25; and pg. 7, line 29 – pg. 8, line 3);

displaying the plurality of possible influencing agents on the computer display (Fig. 1, item 28 and pg. 7, line 22);

entering the reaction into the computer (pg. 6, lines 23 and 24; pg. 7, lines 20 and 21; and pg. 7, lines 24 and 25);

displaying the reaction on the computer display (Fig. 1 item 30 and pg. 7, lines 23 and 24);

for a first period, selecting a first plurality of influencing agents from the plurality of possible influencing agents, wherein the individual was exposed to the first plurality of influencing agents during the first period, wherein the step of selecting the first plurality of influencing agents from the plurality of possible influencing agents is performed by mouse-clicking on at least some of the plurality of influencing agents (Fig. 1, item 36 and pg. 7 line 26 – pg. 8 line 7);

for a second period following the first period, selecting a second plurality of influencing agents from the plurality of possible influencing agents, wherein the individual was exposed to the second plurality of influencing agents during the second period, wherein the step of selecting the second plurality of influencing agents from the plurality of possible influencing agents is performed by mouse-clicking on at least some of the plurality of influencing agents (Fig. 2, item 40 and pg. 8, line 8 – 17);

selecting, via the computer, the reaction that the individual experienced during at least one of the first period, the second period, and a third period, wherein the third period follows the second period (Fig. 2, item 48; Fig. 3, items 58 and 62; and pg. 8, lines 17 – 23);

computing a plurality of correlations corresponding to the plurality of possible influencing agents as each of the plurality of possible influencing agents relate to the reaction (pg. 9, lines 15 – 17; pg. 9, lines 23 – 25; and pg. 10, lines 6 – 10); and

adding, after the first period, an additional influencing agent to the plurality of possible influencing agents (pg. 8, lines 8 – 10).

Independent claim 33 is a combination of claims 1, 3, 4, 5, 9 and 10. More specifically, independent claim 33 finds support in the specification and/or drawings as follows:

33. A method of using a computer and a computer display for identifying a suspect influencing agent that may be causing a reaction in an individual, the method comprising:

entering into the computer a plurality of possible influencing agents, wherein the plurality of possible influencing agents includes the suspect influencing agent, and wherein at least one of the plurality of possible influencing agents is a food (pg. 6, lines 23 and 24; pg. 7, lines 24 and 25; pg. 7, line 29 – pg. 8, line 3; pg. 7 lines 2 and 3; and pg. 7 lines 28 and 29);

displaying the plurality of possible influencing agents on the computer display (Fig. 1, item 28 and pg. 7, line 22);

entering the reaction into the computer (pg. 6, lines 23 and 24; pg. 7, lines 20 and 21; and pg. 7, lines 24 and 25);

displaying the reaction on the computer display (Fig. 1 item 30 and pg. 7, lines 23 and 24);

for a first period, selecting a first plurality of influencing agents from the plurality of possible influencing agents, wherein the individual was exposed to the first plurality of influencing agents during the first period, wherein the step of selecting the first plurality of influencing agents from the plurality of possible influencing agents is performed by mouse-clicking on at least some of the plurality of influencing agents (Fig. 1, item 36 and pg. 7 line 26 – pg. 8 line 7);

for a second period following the first period, selecting a second plurality of influencing agents from the plurality of possible influencing agents, wherein the individual was exposed to the second plurality of influencing agents during the second period, wherein the step of selecting

the second plurality of influencing agents from the plurality of possible influencing agents is performed by mouse-clicking on at least some of the plurality of influencing agents (Fig. 2, item 40 and pg. 8, line 8 – 17);

selecting the reaction that the individual experienced during at least one of the first period, the second period, and a third period, wherein the third period follows the second period, wherein the step of selecting the reaction is performed by mouse-clicking on the reaction (Fig. 2, item 48; Fig. 3, items 58 and 62; and pg. 8, lines 17 – 23);

computing a plurality of correlations corresponding to the plurality of possible influencing agents, wherein the plurality of correlations reflect the likelihood that the plurality of possible influencing agents will cause a future reaction (pg. 9, lines 15 – 17; pg. 9, lines 23 – 25; and pg. 10, lines 6 – 10);

adding, after the first period, an additional influencing agent to the plurality of possible influencing agents (pg. 8, lines 8 – 10);

sorting the plurality of possible influencing agents based on the plurality of correlations (Fig. 4, item 78 and pg. 10, lines 16 and 17);

plotting a graph of the suspect influencing agent and the reaction versus time, and displaying the graph on the computer display to help illustrate how well the suspect influencing agent and the reaction correlate (Fig. 6 and ; and pg. 11, lines 20 – 25); and

assigning a magnitude value to the reaction (Fig. 3, item 66 and pg. 8, line 27 – pg. 9, line 6).

(vi) Grounds of Rejection

In rejecting the claims, the Examiner has organized the rejections, reasons and comments by way of sections labeled 5, 5A – 5T, 6, 6A – 6D, 7, 7A, 8, 8A – 8B, 9, 9A, 11, 11A, 12, 12A, 13, 13A, 14, 14A – 14Z, and 14AA – 14AD, thus the applicant will follow this same format in responding to each point of rejection.

5, 5A) Claims 1, 3-4, 7, 12, and 14-29 have been rejected under 35 USC 103(a) as being unpatentable over Verkow et al., THE MERCK MANUAL in view of Evans et al., A COMPUTER ASSISTED MANAGEMENT PROGRAM FOR ANTIBIOTICS AND OTHER ANTIINFECTIVE AGENTS. Regarding claim 1, the Examiner states that it would have been obvious to one of ordinary skill in the art to include the features of Evans in the method of Berkow with the motivation of providing patient data at the point-of-care.

5B) Regarding Claim 3, the Examiner states that the Evans program is capable of sorting data.

5C) Regarding claim 4, the Examiner states that Berkow discloses the addition of new possible allergens and monitoring for changes in symptoms.

5D) Regarding claim 7, the Examiner states, "Berkow does not explicitly disclose entering additional symptoms; however, Berkow discloses monitoring the recrudescence of symptoms."

5E) Regarding claim 12, the Examiner states that Berkow discloses that the clinical significance of a positive skin test "is determined when results are correlated with the pattern of symptoms and related to environmental exposures."

5F) Regarding claim 14, the Examiner states that Berkow discloses that the influencing agent may be a foodstuff.

5G) Regarding claim 15, the Examiner states that Berkow discloses that ingredients in foods may cause reactions.

5H) Regarding claim 16, the Examiner states that Berkow discloses that symptom occurs some time after the food is ingested.

5I) Regarding claim 17, the Examiner states that Evans discloses determining 95 percent confidence interval.

5J) Regarding claim 18, the Examiner states that Berkow discloses that each period may be one day or more.

5K) Regarding claim 19, the Examiner states that Berkow discloses that "[c]ommonly incriminated food allergens include milk, eggs, shellfish ..."

5L) Regarding claim 20, the Examiner claims that Berkow discloses that the clinical significance is determined when skin test results are correlated with the pattern of symptoms and related to environmental exposures.

5M) Regarding claim 21, the Examiner states that Berkow discloses that "[e]osinophilic enteropthy, which may be related to specific food allergy, is an unusual illness with pain ..."

5N) Regarding claim 22, the Examiner states that Berkow discloses that "[f]ood additives can produce ... asthma"

5O) Regarding claim 23, the Examiner states that Berkow discloses that "perianal eczema have been attributed to food allergy"

5P) Regarding claim 24, the Examiner states that Berkow discloses "[e]osinophilic enteropthy, which may be related to specific food allergy, is an unusual illness with pain... that is associated with blood eosinopilia

5Q) Regarding claim 25, the Examiner states that Berkow discloses that the reaction is suboptimal athletic performance.

5R) Regarding claims 26 and 28, the Examiner states that Berkow discloses that the reaction is depression.

5S) Regarding claim 27, the Examiner states that Berkow discloses that allergy could bring on anaphylaxis, a potentially fatal acute attack.

5T) Regarding claim 29, the Examiner states that Berkow discloses that smoking, i.e., exposure to cigarette smoke, may cause a reaction.

6, 6A) Claims 5, 6, 8 and 32 have been rejected under 35 USC 103(a) as being unpatentable over Berkow et al., THE MERCK MANUAL in view of Evans et al., A COMPUTER ASSISTED MANAGEMENT PROGRAM FOR ANTIBIOTICS AND OTHER ANTIINFECTIVE AGENTS as applied to Claim 1 and further in view of Rappaport et. al. (4,752,889). As per claim 5, the Examiner states that it would have been obvious to include the features of Rappaport in the computerized allergy diagnostic system as jointly taught by Berkow and Evans, with the motivation of associating data items for displaying.

6B) Regarding claim 6, the Examiner states that claim 6 repeats the limitations of claim 5 and is therefore rejected for the same reasons.

6C) Regarding claim 8, the Examiner states that Rappaport discloses that chunks may be displayed in the same view to facilitate selection.

6D) Regarding claim 32, the Examiner states that claim 32 repeats the limitations of claims 1 and 4 – 6, cumulatively, and is therefore rejected for the same reasons.

7, 7A) Claim 9 has been rejected under 35 USC 103(a) as being unpatentable over Berkow et al., THE MERK MANUAL in view of Evans et al., A COMPUTER ASSITED MANAGEMENT PROGRAM FOR ANTIBIOTICS AND OTHER ANTIINFECTIVE AGENTS as applied to Claim 1 above and further in view of Kadtke et al. (6,401,057). The Examiner states that Figure 2B of Kadtke discloses graphing of a correlation parameter versus time delay and that it would have been obvious to generate and display the graph of the correlation versus time delay.

8, 8A, 8B) Claims 10 and 11 have been rejected under 35 USC 103(a) as being unpatentable over Berkow et al., THE MERK MANUAL in view of Evans et al., A COMPUTER ASSITED MANAGEMENT PROGRAM FOR ANTIBIOTICS AND OTHER ANTIINFECTIVE AGENTS as applied to Claim 1 above and further in view of Small et al. (5,910,421). The Examiner states that Small teaches that magnitude values may be assigned to data points and that it would have been obvious to assign magnitude values to the reaction or to the plurality of influencing agents.

9, 9A) Claim 13 has been rejected under 35 USC 103(a) as being unpatentable over Berkow et al., THE MERK MANUAL in view of Evans et al., A COMPUTER ASSITED

MANAGEMENT PROGRAM FOR ANTIBIOTICS AND OTHER ANTIINFECTIVE AGENTS as applied to Claim 1 above and further in view of Lowy, MEDICAL PROGRESS: STAPHYLOCOCCUS AUREUS INFECTIONS. The Examiner states that it would have been obvious to consider the menstruation cycle, as taught by Lowy, when implementing the automated allergy diagnostic system as jointly taught by Berkow and Evans.

11, 11A) Claim 30 has been rejected under 35 USC 103(a) as being unpatentable over Berkow et al., THE MERK MANUAL in view of Evans et al., A COMPUTER ASSITED MANAGEMENT PROGRAM FOR ANTIBIOTICS AND OTHER ANTIINFECTIVE AGENTS as applied to Claim 1 above and further in view of Mebane (5,486,999). The Examiner states that it would have been obvious to identify sleep as a possible influencing agent, as taught by Mebane, when implementing the automated allergy diagnostic system as jointly taught by Berkow and Evans.

12, 12A) Claim 31 has been rejected under 35 USC 103(a) as being unpatentable over Berkow et al., THE MERK MANUAL in view of Evans et al., A COMPUTER ASSITED MANAGEMENT PROGRAM FOR ANTIBIOTICS AND OTHER ANTIINFECTIVE AGENTS as applied to Claim 1 above and further in view of Teller (2002/0013538). The Examiner states that it would have been obvious to correlate patient symptoms with locale-specific environmental data, as taught by Teller, when implementing the automated allergy diagnostic system, as jointly taught by Berkow and Evans.

13, 13A) Claim 33 has been rejected under 35 USC 103(a) as being unpatentable over Berkow et al., THE MERK MANUAL in view of Evans et al., A COMPUTER ASSITED MANAGEMENT PROGRAM FOR ANTIBIOTICS AND OTHER ANTIINFECTIVE AGENTS, Rappaport et al. (4,752,889), Kadtke et al. (6,401,057), and Small et al. (5,910,421). The Examiner states that Claim 33 repeats the limitations of Claims 1, 3-6, 9, 10, 12 and 14 cumulatively, and is therefore rejected for the same reasons, and incorporated herein.

14, 14A) The Examiner states, "Evans discloses a computer system capable of rudimentary data processing with specific application towards identifying patient allergy."

14B) Regarding claim 1, the Examiner states, "While Applicant's asserted advantages may be true, the scope of the claim also envelops identifying the possible allergens as the results

of the skin test, wherein a set of responses is correlated to a set of challenges. Therefore, the asserted advantage is moot with respect to at least some portions of the scope of claim 1.

14C) The Examiner states, "an elimination diet as disclosed by Berkow suggests the method steps of correlating responses to the challenges as recited by Applicant."

14D) The Examiner maintains that "elimination diets fall within the scope of Applicant's claimed invention, and therefore the teachings of Berkow and Evans suggest the limitations of claim 1."

14E) In response to the applicant asserting that Evans does not disclose identifying an unknown allergy, the Examiner states, "one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references." The Examiner maintains that Berkow and Evans in combination jointly teach the limitations of claim 1.

14F) Regarding claim 1, the Examiner further states that "skin testing is a protocol of administering a series of challenges and then observing the test sites for the appropriate response."

14G) As per claim 2, the Examiner states that "the Applicant's argument on page 13 with respect to cancelled claim 2 is found to be not persuasive for the reasons stated above, and incorporated herein.

14H) Regarding claim 3, the Examiner states, "one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references." The Examiner maintains that Berkow and Evans in combination jointly teach the limitations of claim 3.

14I) Examiner cannot attribute any reasonable interpretation to Applicant's argument regarding claim 4 and thus requests additional clarification.

14J) The Examiner states, "Claim 7 recites entering the reaction."

14K) Regarding claim 12, the Examiner maintains that "skin testing is a protocol or correlation challenges with observed responses to determine statistical significance."

14L) Regarding claim 14, the Examiner maintains that "Berkow and Evans jointly disclose a method capable of identifying allergy, including food allergy."

14M) Regarding claim 15, the Examiner maintains that Berkow and Evans jointly disclose a method capable of identifying allergy, including various ingredients contained in food, as discussed above, and incorporated herein. Specifically, Berkow discloses that it is not the food item itself, but the ingredients contained therein that represent the challenges capable of eliciting a response in the patient.

14N) Regarding claim 16, the Examiner maintains that Berkow discloses the possibility of a time delay between the challenge and the response, as is evident by the symptom occurring some time after ingestion. Examiner further maintains that this disclosure from Berkow in combination of the method as jointly disclosed by Berkow and Evans constitute a "time-delayed" correlation of challenges and responses.

14O) Regarding claim 17, The Examiner states that "Berkow discloses determining statistical significance between challenges as responses, as discussed in the discussion of claim 1 above. Evans discloses that calculating confidence intervals to determine statistical significance is old and well established in the art of statistics. In combination, the cited art suggest the limitations of claim 17."

14P) Regarding claim 18, the Examiner states that Berkow discloses the limitations as recited in claim 18, and that the asserted advantages as argued by Applicant has been suggested by Berkow, as is evident by the fact that multiple diets are prescribed with the goal of identifying the positive challenge.

14Q) Regarding claim 19, the Examiner states that the Applicant did not point out, or was Examiner able to find, any recitation of this limitation (equally numerous allergens) in claim 19.

14R) Regarding claim 20, the Examiner states that "Regardless of the fact that Berkow's method applies to skin test, the challenge administered to the patient represents allergens present as the result of environmental exposure. Correlating the challenge with the fact that the patient has previously experienced the same challenge-response pair creates statistical significance for the allergen in question. Additionally, Berkow also discloses observing responses to food challenges, as discussed in the discussion of claim 1 above."

14S) Regarding claims 21 – 28, the Examiner states, "Applicant admits that the recited allergens are well known to be causes of allergic reactions." The Examiner further states that,

"the method as jointly disclosed by Berkow and Evans, and also in combination of the allergens as cited by Examiner and admitted by Applicant, is capable of identifying the recited allergens in claims 21-29."

14T) Regarding claim 29, the Examiner states that the "Applicant argues a newly added limitation not present in the claim as originally presented." The Examiner further states that the "Examiner has changed the ground of rejection as necessitated by Applicant's amendment. It is noted that Examiner maintains that the interpretation adopted by Examiner, and upon which the original rejection was made, is consisted with the claim limitations as originally presented."

14U) Regarding claim 5, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In this case, the Examiner states, "the motivation to combine can be found in Rappaport, which provides a convenient method of selecting displayed data."

14V) Regarding claim 6, the Examiner states that the limitation of claim 6 is substantially the same as the recited in claim 5.

14W) Regarding claim 8, the Examiner states, "Rappaport discloses displaying data in a single view to facilitate selection (Figure 3A-3B). In combination with Berkow and Evans, Rappaport's disclosure anticipates Applicant's claim."

14X) Regarding claim 32, the Examiner states, "claim 32 repeats the limitations of claims 1 and 4-6. Since amended claim 1 is rejected, and since claim 1 incorporates all limitations of cancelled claim 2, it follows that claim 32 is rejected for the same rationale as applied to claims 1 and 4-6, and incorporated herein."

14Y) Regarding claim 9, the Examiner states, "one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In particular, Kadtke's disclosure in combination with Berkow and Evans suggests the claimed invention."

14Z) Regarding claims 10 and 11, the examiner states, "obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed

invention where there is some teaching, suggestion, or motivation o do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In this case, the motivation comes from Small to provide a method capable of distinguishing between allergies and infection (Small, col. 6 lines 10-12)."

14AA) Regarding claim 13, the Examiner states, " Applicant argues that the cited art does not recognize the problem where a menstrual period might alter a woman's usually reaction to an influencing agent, nor does the cited art suggest a solution in regards to claim 13. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., selectively considering or disregarding data collected during a menstrual cycle) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. Assuming *arguendo* that Applicant is correct that this limitation is present in the claim, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In particular, Berkow discloses that TSS is "almost always associated with menstruation" (page 88 paragraph 5). Lowy discloses tat TSS may be caused by an allergic reaction to insect bit (page 527 column 2 paragraph 2). In combination, the cited art suggest that menstruation affects a patient's response, and if the cause is confounded, the improper treatment arising therefrom may cause patient death (Lowy; page 527 column 2 paragraph 2)."

14AB) Regarding claim 15, the Examiner states, " one cannot show nonobviousness by attacking references individually where rejections are based on combinations of references. In particular, claim 30 recites that the method may operate to identify the amount of sleep of the individual as a possible cause. Mebane discloses that the amount of sleep in a patient is a possible cause of reactions in a patient, and may not warrant clinical treatment. In combination, the cited art disclose the claim limitations."

14AC) Regarding claim 31, the Examiner states that the "Applicant did not specifically point out which limitation of the claim was inadequately addressed by the rejection. Additionally, Applicant's amendment to the claim does not put the claim in condition for allowance for the following reason. The cited art in combination suggest that environmental data

may b updated from remote databases to identify the cause of the allergic reaction by correlating the patient's exposure to the information obtained from the databases."

14AD) Regarding claim 33, the Examiner states that the "Applicant does not dispute Examiner's assertion that claim 32 repeats the limitations of claims 1, 3-6, 9, 10 12, and 14. Since amended claim 1 is rejected, and since claim 1 incorporates all limitations of cancelled claim 2, it follows a that claim 33 is rejected for the same rationale as applied to claims 1, 3-6, 9, 10, 12, and 14, and incorporated herein."

(vii) Arguments

One-Page Summary of Applicant's Position

Berkow basically identifies allergens by way of a skin prick test or an elimination diet. Berkow's two test methods are the very two tests that the applicant's invention attempts to replace (application, pg. 2 line 17 – pg. 3 line 12). **Evans** provides a computerized medical records system that simply checks for drug interaction errors, etc. The Evans program does not appear to provide a means for discovering a person's allergies, nor does it appear to provide any diagnoses whatsoever. The applicant's claim-1 defines a method that can help identify a person's allergies without a skin prick test and without an elimination diet.

With the skin prick test of Berkow, a patient receives a first injection or skin prick to see whether there is a corresponding first reaction. The patient might also receive second, third and fourth skin pricks to see if there are corresponding second, third or fourth reactions. With a conventional skin prick test, the skin pricks and reactions correspond one-to-one (i.e., single prick for single reaction, multiple pricks for multiple reactions). On the other hand, the applicant's claim 1 compares, for example, a plurality of foods to a **single reaction**. Claim 1 specifically recites, "computing a plurality of correlations to the plurality of possible influencing agents as each of the plurality of possible influencing agents relate to **the reaction**" The skin prick test of Berkow fails to meet this as well as several other limitations of claim 1.

With the elimination diet of Berkow, the applicant admits that several, say five, suspect foods can be eliminated from a patient's diet. If, however, the patient's reaction disappears upon doing so, such an elimination diet still fails to determine which of the five foods is causing the problem. The applicant's claim 1, specifically recites "based on the plurality of correlations, determining and displaying the suspect influencing agent" – "wherein the suspect influencing agent is one of a plurality of possible influencing agents" Thus, Berkow fails to meet this as well as other limitations of claim 1.

If only one food is avoided in Berkow's elimination diet, then Berkow fails to include numerous other claim 1 limitations, such as "selecting a first plurality of influencing agents," "selecting a second plurality of influencing agents," "computing a plurality of possible influencing agents," etc.

In rejecting the claims, the Examiner has organized the rejections, reasons and comments by way of sections labeled 5, 5A – 5T, 6, 6A – 6D, 7, 7A, 8, 8A – 8B, 9, 9A, 11, 11A, 12, 12A, 13, 13A, 14, 14A – 14Z, and 14AA – 14AD, thus the applicant will use this same format in responding to each point of rejection as follows:

5, 5A) Regarding independent claim 1, the Examiner states that Berkow discloses the step of "(e) and calculating the correlation between symptoms and exposure to possible allergens (page 650, paragraph 4)" The Examiner's interpretation here apparently stems from the Examiner's earlier comment in the office action of February 12, 2007. In that office action, on page 6, second to last paragraph, the Examiner states, "Berkow also teaches that patterns of symptoms may be correlated to environmental exposure ...," but the applicant cannot find where Berkow ever says this. Moreover, the final rejection fails to address this discrepancy.

On pg. 650, paragraph 4, Berkow actually says, "results are correlated with the pattern of symptoms and related to environmental exposures." Berkow's statement is a little confusing, but it appears that Berkow is saying that the results are correlated with the pattern of symptoms, and the results are related to environmental exposures. The applicant is having difficulty making sense of this, but the fact that Berklow clearly states "the results are correlated with the pattern of symptoms" appears to mean the **test results and the symptoms** are compared for correlation, whereas in the case of the applicant's invention, the **exposures and the symptoms** are compared for correlation. The difference being: Berkow uses the skin prick test, and the applicant does not.

Berkow also refers to elimination diets, which are very old and do not require "computing a plurality of correlations," as specifically recited in Claim 1. Neither Berkow nor Evans discloses this step of the applicant's invention. If they were to suggest the applicant's invention (which they don't), there would be no reason to suggest the use of an elimination diet (which they do).

Further in regards to claim 1, Evans appears to disclose a computerized method of checking a patient's medical record for already-known allergies, but the method does not appear

to determine or discover an unknown allergy. Neither Evans nor Berkow appear to suggest any computerized way of determining a suspect influencing agent as defined in claim 1.

5B) Regarding claim 3, the Examiner states that the Evans program is capable of sorting data. Claim 3, however, specifically recites, "sorting the plurality of possible influencing agents based on the plurality of correlations." Such a sorting scheme provides a way of readily identifying the suspect influencing agent. Evans fails to disclose or suggest such a sorting scheme.

5C) Regarding claim 4, with the applicant's method, additional foods and other influencing agents can be added at any time after the test begins.

5D) Regarding claim 7, the applicant maintains that the recrudescence or reoccurrence of a symptom or reaction is certainly not the same as "entering a plurality of reactions into a computer" as recited in claim 7. Any migraine sufferer will admit that entering "migraine headache" into a computer is not the same as experiencing a migraine.

5E) Regarding claim 12, with the skin prick test of Berkow, a patient receives a first injection or skin prick to see whether there is a corresponding first reaction. The patient might also receive second, third and fourth skin pricks to see if there are corresponding second, third or fourth reactions. With a skin prick test, the skin pricks and reactions correspond one-to-one (i.e., single prick for single reaction, multiple pricks for multiple reactions). On the other hand, the applicant's claim 12 compares, for example, a plurality of foods to a **single reaction**. Claim 12 specifically recites, "a plurality of correlations that includes a correlation that reflects the likelihood that the suspect influencing agent may cause a future reation" The skin prick test of Berkow fails to meet this limitation of claim 12.

5F) Regarding claim 14, the applicant is not claiming to be the first to recognize food as being a possible influencing agent. Rather, the applicant is claiming a novel computerized method that can identify various types of influencing agents, including food. The examiner relies on the combination of Berkow and Evans; however, Berkow discloses the very test methods that the applicant's invention is trying to avoid, and Evans does not appear to provide any diagnosis whatsoever. Both Berkow and Evans fail to disclose the limitation of claim 14 as depending from claim 1.

5G) Regarding claim 15, Berkow might recognize that an ingredient of a food might be causing the reaction, but Berkow fails to disclose "computing a correlation between the ingredient and the reaction," as specifically recited in Claim 15..

5H) Regarding claim 16, the Examiner states that Berkow discloses that symptom occurs some time after the food is ingested. The applicant, however, asserts that Berkow fails to disclose, "computing a time-delayed correlation between the suspect influencing agent and the reaction," as specifically recited in Claim 16.

5I) Regarding claim 17, the Examiner states that Evans discloses determining 95 percent confidence interval. The applicant believes the 95 percent confidence interval pertains to the effectiveness of implementing Evans' computerized program, not the confidence of a correlation value. Neither Berkow nor Evans, considered separately or in combination, suggests assigning a plurality of confidence values to a plurality of correlations, as specifically recited by the applicant in Claim 17.

5J) Regarding claim 18, although Berkow suggests an elimination diet that can change from one day to the next. In doing so, Berkow can determine if some diets are better than others. Berkow fails to disclose calculating a plurality of reaction/agent correlations on foods that are intermittently consumed (on and off) over a span of multiple days. The applicant specifically

recites, "the first period and the second period are sequenctial days." Berkow fails to disclose this limitation when this limitation is taken in the context of claim 1.

5K) Regarding claim 19, the Examiner states that the "Applicant argues that Berkow does not disclose identifying an allergen amongst equally numerous allergens;" however, the applicant actually stated, "Berkow and others, however, fail to pick out an allergen among numerous possible influencing agents based on equally numerous reaction/agent correlations."

5L) Regarding claim 20, Berkow and others fail to pick out an environmental exposure among numerous possible influencing agents based on numerous reaction/agent correlations. The correlation that Berkow refers to pertains to the validity of a skin prick test.

5M) Regarding claim 21, Berkow might teach that reactions can be associated with pain, however, Berkow fails to identify a likely cause of a pain-related reaction by computing numerous reaction/agent correlations of numerous possible influencing agents.

5N) Regarding claim 22, Berkow might teach that food additives can cause asthma or other respiratory-related reactions, however, Berkow fails to identify a likely cause of a respiratory-related reaction by computing numerous reaction/agent correlations of numerous possible influencing agents.

5O) Regarding claim 23, Berkow might teach that food can cause perianal eczema or other skin-related reactions, however, Berkow fails to identify a likely cause of a skin-related reaction by computing numerous reaction/agent correlations of numerous possible influencing agents.

5P) Regarding claim 24, Berkow might teach that food can cause high blood pressure, however, Berkow fails to specifically identify a likely cause of high blood pressure by computing numerous reaction/agent correlations of numerous possible influencing agents.

5Q) Regarding claim 25, Berkow might teach that food can cause fatigue, however, Berkow fails to specifically identify a likely cause of the fatigue by computing numerous reaction/agent correlations of numerous possible influencing agents.

5R) Regarding claims 26 and 28, Berkow might teach that food can cause mentally-related problems or emotional disturbances, however, Berkow fails to specifically identify a likely cause of such problems by computing numerous reaction/agent correlations of numerous possible influencing agents.

5S) Regarding claim 27, Berkow might teach that an allergy could bring on convulsions, however, Berkow fails to identify what specifically might be causing a seizure by computing numerous reaction/agent correlations of numerous possible influencing agents.

5T) Regarding claim 29, Berkow might teach that food can cause an allergic reaction, but Berkow does not suggest that the actual act of eating can cause a reaction. The applicant has amended Claim 29 to clarify this point.

6, 6A) Regarding claims 5, neither Berkow nor Evans suggest any reason or motivation for using a computer to select first and second pluralities of influencing agents. Berkow teaches skin prick testing and elimination diets. Evans discloses a computerized medical record that looks for errors. Rappaport discloses general mouse-clicking. These three references are distinctly different from each other and their combination is awkward and disjointed. Nonetheless, even if these references are combined, they still fail to disclose the applicant's invention as claimed.

6B) Regarding claim 6, the Examiner states "Claim 6 repeats the limitations of claim 5, and is therefore rejected for the same reasons." But that's not true. Claim 5 recites mouse-clicking on possible influencing agents, and claim 6 recites mouse-clicking on the reaction. Moreover, the Examiner has not pointed out where Berkow or Evans suggests the applicant's step of selecting a reaction via mouse-clicking.

6C) Regarding claim 8, none of the cited references suggest displaying a single view of the reaction and the plurality of possible influencing agents, as claimed by the applicant. Berkow teaches skin prick testing and elimination diets. Evans discloses a computerized medical record that looks for errors. Rappaport discloses general mouse-clicking. These three references are distinctly different from each other and their combination is awkward and disjointed.

6D) Regarding independent claim 32, the Examiner states that Claim 32 repeats the limitations of Claims 1 and 4 – 6, cumulatively, and is therefore rejected for the same reasons. Claim 32, however, also includes the limitations of original Claim 2. Thus, applicant submits that Claim 32 should be allowed for reasons already presented with reference to Claims 1, 2, and 4 – 6.

7, 7A) Regarding claim 9, the applicant isn't claiming simply the graphing of a correlation parameter versus time delay. Rather, the applicant claims plotting the **suspect influencing agent** AND the **reaction** versus time. The Examiner says that the applicant is attacking the references individually; however, the applicant maintains that none of the references considered separately or in combination disclose or even suggest plotting the suspect influencing agent AND the reaction versus time.

8/8A) Regarding claim 10, the Examiner says the motivation to combine the references comes from "Small to provide a method capable of distinguishing between allergies and infection

(Small, col. 6 lines 10 – 12). The applicant, however, is claiming assigning a magnitude value to the reaction. That in combination with the limitations of claim 1 is not disclosed nor suggested by the awkward and disjointed combination of Berkow, Evans and Small.

8/8B) Regarding claim 11, the Examiner says the motivation to combine the references comes from "Small to provide a method capable of distinguishing between allergies and infection (Small, col. 6 lines 10 – 12). The applicant, however, is claiming assigning a magnitude value to the influencing agent. That in combination with the limitations of claim 1 is not disclosed nor suggested by the awkward and disjointed combination of Berkow, Evans and Small.

9, 9A) Regarding claim 13, this claim covers the extremely narrow concept of selectively considering or disregarding data collected during a menstrual cycle. This feature can be useful in cases where a menstrual period might alter a woman's usual reaction to an influencing agent. None of the cited art seems to recognize this problem or suggest such a solution. To cover this concept, the applicant's claim 13 specifically recites, "the first computation and the second computation are differentiated from each other by how the first computation and the second computation account for a menstrual period." This is just one example of a claim that the applicant was certain would be allowed. The applicant is absolutely dumbfounded by the rejection. In light of this particular rejection, the applicant questions whether the Examiner would ever consider allowing any claim submitted by the applicant.

11, 11A) Regarding claim 30, the Examiner states that Mebane teaches that the amount of sleep the patient has may be screened as factors that affect patient care. That might be true, but the applicant is not claiming that. The Examiner says the applicant cannot attack the references individually; however, it is Mebane that the Examiner relies on for the "sleep" disclosure. Since Mebane fails to disclose the "sleep" aspect of the applicant's claim 30, and the other references cited by the Examiner fail to disclose it, then the whole combination of Berkow, Evans and Mebane fail to disclose the applicant's invention as recited in claim 30.

12, 12A) Regarding claim 31, the applicant has amended the claim to more distinctly specify that the computed correlation can be used to help determine the suspect influencing agent rather than just to explain why an individual's known asthma condition is acting up. In response to the Examiner saying that the applicant did not specifically point out which limitation of the claim was inadequately addressed by the rejection, the applicant points out that claim 31 specifically recites: "downloading into the computer Internet accessible data that relates to an environmental exposure, and computing a correlation between the environmental exposure and the reaction, wherein the step of determining and displaying the suspect influencing agent is further based on the correlation between the environmental exposure and the reaction"

13, 13A) Regarding independent claim 33, the Examiner states that Claim 33 repeats the limitations of Claims 1, 3-6, 9, 10, 12 and 14, cumulatively, and is therefore rejected for the same reasons. Claim 33, however, also includes the limitations of original Claim 2. Thus, applicant submits that Claim 33 should be allowed for reasons already presented with reference to Claims 1-6, 9, 10, 12 and 14.

14, 14A) Regarding independent claim 1, see page 16, section 5A. The Examiner states "Evans discloses a computer system capable of rudimentary data processing with specific application towards identifying patient allergy." The applicant does not see how the Evans method can be used for "identifying patient allergy," as it appears that the Evans method is merely a computerized record keeping system that includes data processing for identifying drug-related errors.

14B) Regarding independent claim 1, see page 16, section 5A. The Examiner states, "While Applicant's asserted advantages may be true, the scope of the claim also envelops identifying the possible allergens as the results of the skin test, wherein a set of responses is correlated to a set of challenges. Therefore, the asserted advantage is moot with respect to at

least some portions of the scope of claim 1. Even if the advantages are moot with respect to at least some portions of the scope of claim 1, what about the other portions?

The applicant asserts that claim 1 does not encompass or read upon a skin prick test. With the skin prick test of Berkow, a patient receives a first injection or skin prick to see whether there is a corresponding first reaction. The patient might also receive second, third and fourth skin pricks to see if there are corresponding second, third or fourth reactions. With a skin prick test, the skin pricks and reactions correspond one-to-one (i.e., single prick for single reaction, multiple pricks for multiple reactions). On the other hand, the applicant's claim 1 compares, for example, a plurality of foods to a **single reaction**. Claim 1 specifically recites, "computing a plurality of correlations to the plurality of possible influencing agents as each of the plurality of possible influencing agents relate to **the reaction**" The skin prick test of Berkow fails to meet this as well as several other limitations of claim 1.

14C) Regarding independent claim 1, see page 16, section 5A. The Examiner states, "an elimination diet as disclosed by Berkow suggests the method steps of correlating responses to the challenges as recited by Applicant." That, however, is not what claim 1 recites. Rather, claim 1 recites, "computing a plurality of correlations corresponding to the plurality of possible influencing agents as each of the plurality of possible influencing agents relate to the reaction" With claim 1 as written, it is possible to have a plurality of influencing agents that are checked for correlation with a single reaction. This distinction is explained in more detail in the following section 14D.

14D) Regarding independent claim 1, see page 16, section 5A. The Examiner maintains that "elimination diets fall within the scope of Applicant's claimed invention, and therefore the teachings of Berkow and Evans suggest the limitations of claim 1."

The applicant disagrees. With the elimination diet of Berkow, the applicant admits that several, say five, suspect foods can be eliminated from a patient's diet. If, however, the patient's reaction disappears upon doing so, such an elimination diet still fails to determine which of the five foods is causing the problem. The applicant's claim 1, specifically recites "based on the

plurality of correlations, determining and displaying the suspect influencing agent" – "wherein the suspect influencing agent is one of a plurality of possible influencing agents" Thus, Berkow fails to meet this as well as other limitations of claim 1.

If only one food is avoided in Berkow's elimination diet, then Berkow fails to include numerous other claim 1 limitations, such as "selecting a first plurality of influencing agents," "selecting a second plurality of influencing agents," "computing a plurality of possible influencing agents," etc.

14E) Regarding independent claim 1, see page 16, section 5A. The applicant has pointed out that Evans does not disclose identifying an unknown allergy. The Examiner responds by stating, "one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references." However, neither Evans nor Berkow discloses the applicant's invention as recited in claim 1. If they were to suggest the applicant's invention (which they don't), there would be no reason to suggest the use of a skin prick test (which they do). The applicant maintains that both Berkow and Evans considered separately or in combination fail to disclose several claim 1 limitations including, but not limited to, "computing a plurality of correlations corresponding to the plurality of possible influencing agents as each of the plurality of possible influencing agents relate to the reaction" and "based on the plurality of correlations, determining and displaying the suspect influencing agent."

14F) Regarding independent claim 1, see page 16, section 5A. The Examiner further states that "skin testing is a protocol of administering a series of challenges and then observing the test sites for the appropriate response." That may be true, but that is not what the applicant is claiming.

The applicant asserts that claim 1 does not encompass or read upon a skin prick test. With the skin prick test of Berkow, a patient receives a first injection or skin prick to see whether there is a corresponding first reaction. The patient might also receive second, third and fourth skin pricks to see if there are corresponding second, third or fourth reactions. With a skin prick test, the skin pricks and reactions correspond one-to-one (i.e., single prick for single reaction,

multiple pricks for multiple reactions). On the other hand, the applicant's claim 1 compares, for example, a plurality of foods to a **single reaction**. Claim 1 specifically recites, "computing a plurality of correlations to the plurality of possible influencing agents as each of the plurality of possible influencing agents relate to **the reaction**" The skin prick test of Berkow fails to meet this as well as several other limitations of claim 1.

14G) Regarding claim 1, see page 16, section 5A. The Examiner states "Berkow also teaches that patterns of symptoms may be correlated to environmental exposure...," but the applicant cannot find where Berkow says this. On pg. 650, paragraph 4, Berkow actually says, "results are correlated with the pattern of symptoms and related to environmental exposures." Berkow's statement is a little confusing, but it appears that Berkow is saying that the results are correlated with the pattern of symptoms, and the results are related to environmental exposures. The applicant is having difficulty making sense of this, but the fact that Berklow clearly states, "the results are correlated with the pattern of symptoms" appears to mean the **test results and the symptoms** are compared for correlation, whereas in the case of the applicant's invention, the **exposures and the symptoms** are compared for correlation. The difference being: Berkow uses the skin prick test, and the applicant does not.

Regarding the subject matter of claim 2, which the applicant has incorporated into claim 1, the Examiner states "Berkow teaches that a plurality of symptoms is correlated to a plurality of possible causes." On page 650, paragraph 4, Berkow actually says, "...results are correlated with the pattern of symptoms..." The applicant's remarks in the preceding paragraph pertaining to Claim 1 applies to Claim 2 as well.

14H) Regarding claim 3, the Examiner says "Applicant argues that Evans does not disclose sorting data." That was not the applicant's argument. The applicant actually said, "Evans fails to disclose or suggest such a sorting scheme." "Such a sorting scheme" refers to the method where claim 3 specifically recites, "sorting the plurality of possible influencing agents based on the plurality of correlations." Such a sorting scheme provides a way of readily identifying the suspect influencing agent.

14I) Regarding claim 4, with the applicant's method, additional foods and other influencing agents can be added at any time after the test begins.

14J) Regarding claim 7, the applicant maintains that the recrudescence or reoccurrence of a symptom or reaction is certainly not the same as "entering a plurality of reactions into a computer" as recited in claim 7. Any migraine sufferer will admit that entering "migraine headache" into a computer is not the same as experiencing a migraine.

14K) Regarding claim 12, with the skin prick test of Berkow, a patient receives a first injection or skin prick to see whether there is a corresponding first reaction. The patient might also receive second, third and fourth skin pricks to see if there are corresponding second, third or fourth reactions. With a skin prick test, the skin pricks and reactions correspond one-to-one (i.e., single prick for single reaction, multiple pricks for multiple reactions). On the other hand, the applicant's claim 12 compares, for example, a plurality of foods to a **single reaction**. Claim 12 specifically recites, "a plurality of correlations that includes a correlation that reflects the likelihood that the suspect influencing agent may cause a future reation" The skin prick test of Berkow fails to meet this limitation of claim 12.

14L) Regarding claim 14, the applicant is not claiming to be the first to recognize food as being a possible influencing agent. Rather, the applicant is claiming a novel computerized method that can identify various types of influencing agents, including food. The examiner relies on the combination of Berkow and Evans; however, Berkow discloses the very test methods that the applicant's invention is trying to avoid, and Evans does not appear to provide any diagnosis whatsoever. Both Berkow and Evans fail to disclose the limitation of claim 14 as depending from claim 1.

14M) Regarding claim 15, Berkow might recognize that an ingredient of a food might be causing the reaction, but Berkow fails to identify which ingredient might be causing a reaction. The applicant identifies the ingredient by "computing a correlation between the ingredient and the reaction," as specifically recited in Claim 15.

14N) Regarding claim 16, the Examiner states that Berkow discloses that symptom occurs some time after the food is ingested. The applicant, however, asserts that Berkow fails to disclose, "computing a time-delayed correlation between the suspect influencing agent and the reaction," as specifically recited in Claim 16.

14O) Regarding claim 17, the Examiner states that Evans discloses determining 95 percent confidence interval. The applicant believes the 95 percent confidence interval pertains to the effectiveness of implementing Evans' computerized program, not the confidence of a correlation value. Neither Berkow nor Evans, considered separately or in combination, suggests assigning a plurality of confidence values to a plurality of correlations, as specifically recited by the applicant in Claim 17.

14P) Regarding claim 18, although Berkow suggests an elimination diet that can change from one day to the next. In doing so, Berkow can determine if some diets are better than others. Berkow fails to disclose calculating a plurality of reaction/agent correlations on foods that are intermittently consumed (on and off) over a span of multiple days. The applicant specifically recites, "the first period and the second period are sequenctial days." Berkow fails to disclose this limitation when this limitation is taken in the context of claim 1.

14Q) Regarding claim 19, the Examiner states that the "Applicant argues that Berkow does not disclose identifying an allergen amongst equally numerous allergens;" however, the applicant actually stated, "Berkow and others, however, fail to pick out an allergen among numerous possible influencing agents based on equally numerous reaction/agent correlations."

14R) Regarding claim 20, Berkow and others fail to pick out an environmental exposure among numerous possible influencing agents based on numerous reaction/agent correlations. The correlation that Berkow refers to pertains to the validity of a skin prick test.

14S) Regarding claims 21 – 28, see applicant's arguments presented in sections 5M – 5R.

14T) Regarding claim 29, Berkow might teach that food can cause an allergic reaction, but Berkow does not suggest that the actual act of eating can cause a reaction. The applicant has amended Claim 29 to clarify this point.

14U) Regarding claim 5, neither Berkow nor Evans suggest any reason or motivation for using a computer to select first and second pluralities of influencing agents. Berkow teaches skin prick testing and elimination diets. Evans discloses a computerized medical record that looks for errors. Rappaport discloses general mouse-clicking. These three references are distinctly different from each other and their combination is awkward and disjointed. Nonetheless, even if these references are combined, they still fail to disclose the applicant's invention as claimed.

14V) Regarding claim 6, the Examiner states "Claim 6 repeats the limitations of claim 5, and is therefore rejected for the same reasons." But that's not true. Claim 5 recites mouse-clicking on possible influencing agents, and claim 6 recites mouse-clicking on the reaction. Moreover, the Examiner has not pointed out where Berkow or Evans suggests the applicant's step of selecting a reaction via mouse-clicking.

14W) Regarding claim 8, none of the cited references suggest displaying a single view of the reaction and the plurality of possible influencing agents, as claimed by the applicant. Berkow teaches skin prick testing and elimination diets. Evans discloses a computerized medical record

that looks for errors. Rappaport discloses general mouse-clicking. These three references are distinctly different from each other and their combination is awkward and disjointed.

14X) Regarding independent claim 32, the Examiner states that Claim 32 repeats the limitations of Claims 1 and 4 – 6, cumulatively, and is therefore rejected for the same reasons. Claim 32, however, also includes the limitations of original Claim 2. Thus, applicant submits that Claim 32 should be allowed for reasons already presented with reference to Claims 1, 2, and 4 – 6.

14Y) Regarding claim 9, the applicant isn't claiming simply the graphing of a correlation parameter versus time delay. Rather, the applicant claims plotting the **suspect influencing agent** AND the **reaction** versus time. The Examiner says that the applicant is attacking the references individually; however, the applicant maintains that none of the references considered separately or in combination disclose or even suggest plotting the suspect influencing agent AND the reaction versus time.

14Z) Regarding claims 10 and 11, see applicant's arguments presented in sections 8/8A and 8/8B.

14AA) Regarding claim 13, this claim covers the extremely narrow concept of selectively considering or disregarding data collected during a menstrual cycle. This feature can be useful in cases where a menstrual period might alter a woman's usual reaction to an influencing agent. None of the cited art seems to recognize this problem or suggest such a solution. To cover this concept, the applicant's claim 13 specifically recites, "the first computation and the second computation are differentiated from each other by how the first computation and the second computation account for a menstrual period." This is just one example of a claim that the applicant was certain would be allowed. The applicant is absolutely dumbfounded by the

rejection. In light of this particular rejection, the applicant questions whether the Examiner would ever consider allowing any claim submitted by the applicant.

14AB) Regarding claim 30, the Examiner states that Mebane teaches that the amount of sleep the patient has may be screened as factors that affect patient care. That might be true, but the applicant is not claiming that. The Examiner says the applicant cannot attack the references individually; however, it is Mebane that the Examiner relies on for the "sleep" disclosure. Since Mebane fails to disclose the "sleep" aspect of the applicant's claim 30, and the other references cited by the Examiner fail to disclose it, then the whole combination of Berkow, Evans and Mebane fail to disclose the applicant's invention as recited in claim 30.

14AC) Regarding claim 31, the applicant has amended the claim to more distinctly specify that the computed correlation can be used to help determine the suspect influencing agent rather than just to explain why an individual's known asthma condition is acting up. In response to the Examiner saying that the applicant did not specifically point out which limitation of the claim was inadequately addressed by the rejection, the applicant points out that claim 31 specifically recites: "downloading into the computer Internet accessible data that relates to an environmental exposure, and computing a correlation between the environmental exposure and the reaction, wherein the step of determining and displaying the suspect influencing agent is further based on the correlation between the environmental exposure and the reaction"

14AD) Regarding independent claim 33, the Examiner states that Claim 33 repeats the limitations of Claims 1, 3-6, 9, 10, 12 and 14, cumulatively, and is therefore rejected for the same reasons. Claim 33, however, also includes the limitations of original Claim 2. Thus, applicant submits that Claim 33 should be allowed for reasons already presented with reference to Claims 1-6, 9, 10, 12 and 14.

(viii) Claims Appendix

1. A method of using a computer and a computer display for identifying a suspect influencing agent that may be causing a reaction in an individual, wherein the suspect influencing agent is one of a plurality of possible influencing agents, the method comprising:

displaying the plurality of possible influencing agents on the computer display;

displaying the reaction on the computer display;

for a first period, selecting a first plurality of influencing agents from the plurality of possible influencing agents, wherein the individual was exposed to the first plurality of influencing agents during the first period, wherein the step of selecting the first plurality of influencing agents is via the computer;

for a second period following the first period, selecting a second plurality of influencing agents from the plurality of possible influencing agents, wherein the individual was exposed to the second plurality of influencing agents during the second period, wherein the step of selecting the second plurality of influencing agents is via the computer;

selecting, via the computer, the reaction that the individual experienced during at least one of the first period, the second period, and a third period, wherein the third period follows the second period;

computing a plurality of correlations corresponding to the plurality of possible influencing agents as each of the plurality of possible influencing agents relate to the reaction; and

based on the plurality of correlations, determining and displaying the suspect influencing agent.

2. The method of claim 1, further comprising computing a plurality of correlations corresponding to the plurality of possible influencing agents as each of the plurality of possible influencing agents relate to the reaction.

3. The method of claim 1, further comprising sorting the plurality of possible influencing agents based on the plurality of correlations.

4. The method of claim 1, further comprising adding, after the first period, an additional possible influencing agent to the plurality of possible influencing agents.

5. The method of claim 1, wherein the step of selecting the first plurality of influencing agents from the plurality of possible influencing agents is performed by mouse-clicking on at least some of the plurality of possible influencing agents.

6. The method of claim 1, wherein the step of selecting the reaction that the individual experienced involves mouse-clicking on the reaction.

7. The method of claim 1, further comprising entering a plurality of reactions into the computer wherein the plurality of reactions includes the reaction.

8. The method of claim 1, further comprising displaying a single view of the reaction and the ~~first~~ plurality of possible influencing agents on the computer display, wherein the single view assists in selecting the reaction and assists in selecting the first plurality of influencing agents.

9. The method of claim 1, further comprising plotting a graph of the suspect influencing agent and the reaction versus time, and displaying the graph on the computer display to help illustrate how well the suspect influencing agent and the reaction correlate.

10. The method of claim 1, further comprising assigning a magnitude value to the reaction.

11. The method of claim 1, further comprising assigning a magnitude value to each of the first plurality of influencing agents.

12. The method of claim 1, wherein the plurality of correlations includes a correlation that reflects the likelihood that the suspect influencing agent may cause a future reaction.

13. The method of claim 1, wherein the plurality of correlations are based selectively on a first computation and a second computation, the first computation and the second computation are differentiated from each other by how the first computation and the second computation account for a menstrual period.

14. The method of claim 1, wherein at least one of the plurality of possible influencing agents is a food.

15. The method of claim 14, further comprising specifying an ingredient for the food, and computing a correlation between the ingredient and the reaction.

16. The method of claim 1, further comprising computing a time-delayed correlation between the suspect influencing agent and the reaction.

17. The method of claim 1, further comprising assigning a plurality of confidence values to the plurality of correlations.

18. The method of claim 1, wherein the first period and the second period are sequential days.

19. The method of claim 1, wherein the suspect influencing agent is an allergen.

20. The method of claim 1, wherein the suspect influencing agent is an environmental exposure.

21. The method of claim 1, wherein the reaction is a physical pain.

22. The method of claim 1, wherein the reaction is respiratory-related.

23. The method of claim 1, wherein the reaction is skin-related.

24. The method of claim 1, wherein the reaction is blood pressure.

25. The method of claim 1, wherein the reaction is fatigue.

26. The method of claim 1, wherein the reaction is mentally-related.

27. The method of claim 1, wherein the reaction is a seizure.

28. The method of claim 1, wherein the reaction is an emotional disturbance.

29. The method of claim 1, wherein the suspect influencing agent is an activity of the individual.

30. The method of claim 1, wherein the suspect influencing agent relates to an amount of sleep of the individual.

31. The method of claim 1, further comprising downloading into the computer Internet accessible data that relates to an environmental exposure, and computing a correlation between the environmental exposure and the reaction, wherein the step of determining and displaying the suspect influencing agent is further based on the correlation between the environmental exposure and the reaction.

32. A method of using a computer and a computer display for identifying a suspect influencing agent that may be causing a reaction in an individual, wherein the suspect influencing agent is one of a plurality of possible influencing agents, the method comprising:

entering into the computer the plurality of possible influencing agents;

displaying the plurality of possible influencing agents on the computer display;

entering the reaction into the computer;

displaying the reaction on the computer display;

for a first period, selecting a first plurality of influencing agents from the plurality of possible influencing agents, wherein the individual was exposed to the first plurality of influencing agents during the first period, wherein the step of selecting the first plurality of influencing agents from the plurality of possible influencing agents is performed by mouse-clicking on at least some of the plurality of possible influencing agents;

for a second period following the first period, selecting a second plurality of influencing agents from the plurality of possible influencing agents, wherein the individual was exposed to the second plurality of influencing agents during the second period, wherein the step of selecting the second plurality of influencing agents from the plurality of possible influencing agents is performed by mouse-clicking on at least some of the plurality of influencing agents;

selecting, via the computer, the reaction that the individual experienced during at least one of the first period, the second period, and a third period, wherein the third period follows the second period;

computing a plurality of correlations corresponding to the plurality of possible influencing agents as each of the plurality of possible influencing agents relate to the reaction;

adding, after the first period, an additional influencing agent to the plurality of possible influencing agents; and

based on the plurality of correlations, determining and displaying the suspect influencing agent.

33. A method of using a computer and a computer display for identifying a suspect influencing agent that may be causing a reaction in an individual, the method comprising:

entering into the computer a plurality of possible influencing agents, wherein the plurality of possible influencing agents includes the suspect influencing agent, and wherein at least one of the plurality of possible influencing agents is a food;

displaying the plurality of possible influencing agents on the computer display;

entering the reaction into the computer;

displaying the reaction on the computer display;

for a first period, selecting a first plurality of influencing agents from the plurality of possible influencing agents, wherein the individual was exposed to the first plurality of influencing agents during the first period, wherein the step of selecting the first plurality of influencing agents from the plurality of possible influencing agents is performed by mouse-clicking on at least some of the plurality of possible influencing agents;

for a second period following the first period, selecting a second plurality of influencing agents from the plurality of possible influencing agents, wherein the individual was exposed to the second plurality of influencing agents during the second period, wherein the step of selecting the second plurality of influencing agents from the plurality of possible influencing agents is performed by mouse-clicking on at least some of the plurality of possible influencing agents;

selecting the reaction that the individual experienced during at least one of the first period, the second period, and a third period, wherein the third period follows the second period, wherein the step of selecting the reaction is performed by mouse-clicking on the reaction;

computing a plurality of correlations corresponding to the plurality of possible influencing agents, wherein the plurality of correlations reflect the likelihood that the plurality of possible influencing agents will cause a future reaction;

adding, after the first period, an additional influencing agent to the plurality of possible influencing agents;

sorting the plurality of possible influencing agents based on the plurality of correlations;

plotting a graph of the suspect influencing agent and the reaction versus time, and displaying the graph on the computer display to help illustrate how well the suspect influencing agent and the reaction correlate;

assigning a magnitude value to the reaction; and

displaying the magnitude value on the computer display.

(ix) Evidence Appendix

None

(x) Related Proceedings Appendix

None

Respectfully submitted,

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